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Phoenix
OS/2
Society

extended attributes

The magazine of the OS/2 community

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Coma-dex

by Bill Schindler, Editor-in-chief

comment

Fall Comdex is the show that has traditionally been the place for companies to announce new products, showcase new versions, and display upcoming technologies. For that reason, Fall Comdex is usually a good place to take the pulse of the computer industry and see all the new and cool stuff.

Fall Comdex this year was boring, boring, boring. If this Comdex is any indication of the computer industry-at-large, then the industry is sound asleep (if not going into a coma).

Okay, I *did* find a few twitches of life. And there were a couple of cool items.

Into their own

One good way to know if a product has "made it" is when that product starts showing up *everywhere* on the Comdex show floor. This was true for CD-ROMs, 17 inch monitors, Windows, color printers, and a long list of other items. Products that never get out of the niches and corners of the show floor usually continue to be relegated to the niches and corners of the computer industry.

Products that moved out of the corners of the show floor and into the "everywhere" category this year included flat panel monitors and USB.

Flat panel monitors are no real surprise. The prices have been coming down all year. The "cool factor" is high enough that most of us want one.

From the amount of translucent Bondi blue USB peripherals, I'd guess that Apple's iMac has given USB a real jump start. USB gave several companies the chance to announce "new" versions of their products, even though the only change was to add a USB connector.

One of the big product categories that was almost completely missing from the show floor was Java. I managed to dig up a Java application in the Linux pavilion. Craig (our reviews editor) mentioned that he'd found a set of Java applets in another booth. Otherwise, Java seems to have turned into "write once, vanish everywhere."

Another product category that was missing was developer tools. A few years ago, there were lots of developer tools to be found at Comdex. This year, developer tools seem to have moved to more focused shows like Software Development.

Other cool stuff

Probably the coolest thing at Comdex was Play, Inc's Trinity system. Trinity gives you a very powerful "television studio in a box" for about \$5,000. It can even stream video out to a Web site.

Many products improved slightly, picked up a few new features, or at least picked up a new version number. But almost none of the changes were worth more than a glance.

Maybe next year... ☹

Phoenix OS/2 Society, Inc

The Phoenix OS/2 Society, Inc (POSSI) is an international organization of computer users with an interest in IBM's OS/2 operating system and related issues.

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Indelible Blue announces new service

press release

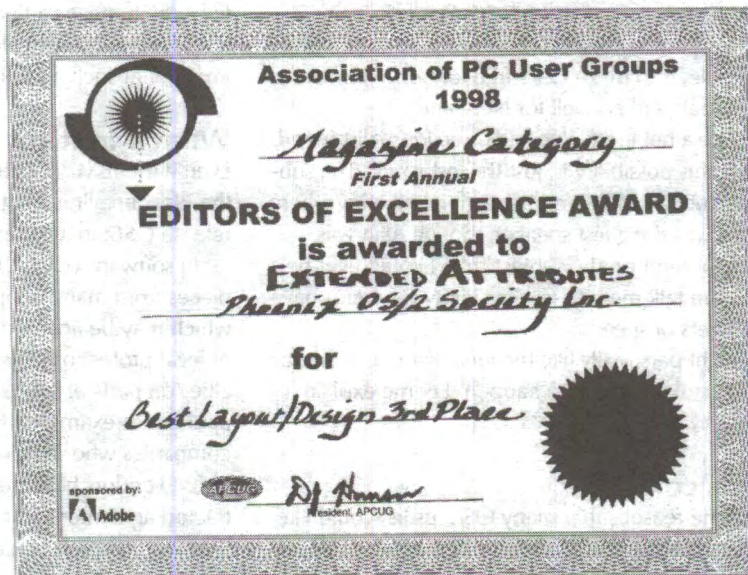
Indelible Blue, a leading IBM and Lotus reseller, has added phone-based technical support to its already broad offering of hardware and software solutions. OS/2, WorkSpace on Demand, and Warp Server are currently supported at a rate of \$75 per half hour. No long-term contracts or pre-paid packages are required. All support questions and charges will be handled on an individual basis.

The support service was created out of customer demand, but any individual or organization with an OS/2-related question may call Indelible Blue's toll-free number (1-800-776-8284), Monday through Friday, 9:00am-5:00pm (eastern time), and speak to an account representative. Indelible Blue support will then call the customer in

four hours or less. No charges will be billed if the support issue cannot be resolved by Indelible Blue personnel.

"We have built an impressive amount of OS/2 and OS/2-related knowledge through the years and have been informally offering support since our inception," said Buck Bohac, Indelible Blue president. "We decided, based on customer inquiry volumes, to formalize the service."

Indelible Blue, based in Raleigh, NC, is a leading reseller of IBM/Lotus solutions with expertise in volume licensing. The company also provides a broad selection of software and hardware products for NT, OS/2, Java, Linux, and PalmPilot, as well as custom hardware systems. The company can be contacted at 1-800-776-8284 or www.indelible-blue.com.



Scurvy elephants

Why IBM won't make OS/2 open source

by Esther Schindler

When I was growing up, my mother's women friends must have been her "escape to sanity." The families were friends, and the adults were my "courtesy" aunts and uncles, but the friendship was essentially between the five women. Mom and her four friends would take off for a weekend "with the girls" to go camping, take an art class, or do something that was clearly not "being a Mom."

Mom's clique chose a name: The Scurvy Elephants. They steadfastly refused to explain to husbands and children why they'd picked that name, but after many years they finally relented. The story, it seems, came from Aunt Molly's experiences as a grade school teacher.

The parent of one student called the teacher to complain, "My son came home from school and said you'd called him a scurvy elephant! How dare you call my child such a thing!" The teacher replied, "I didn't say he was a scurvy elephant. I said he was a *disturbing element*."

Perhaps that's how IBM thinks of us OS/2 end users, too.

Whatever their opinion, it's evident to most of us that IBM doesn't particularly want us end-users. Sure, they insist that they intend to support our favorite OS for years to come, but even the most ardent of the "IBM, right or wrong" believers (all three of them) admit that the company's support isn't exactly what they'd personally dream of.

One prospective suggestion, mentioned more and more often, is "IBM ought to just make OS/2 Open Source," or give away the operating system in some form. One alternative, for example, is to make OS/2 free for non-commercial use, a model that worked well for Netscape.

This must be a hot topic. I've had three journalist friends ask me about this possibility in just the last week. The subject came up, too, at the November general meeting where Alan Zeichick was the guest speaker, though Alan was much more eloquent on the subject than I could ever be. (A man who can talk me into visiting Twitty City must have awesome powers of speech.)

While I might personally like the idea of an open source OS/2, I don't think it's going to happen. Let me explain a few reasons why.

Open Source OS/2?

I understand the reasons that many OS/2 users would like the operating systems' source code to be made publicly available. At first blush, it looks like a good idea.

To start with, if the code is out of IBM's hands, enthusiastic and talented programmers could add functional enhancements that IBM is not interested in providing. For

example, IBM may not have any reason to add support for games, but multimedia and graphics support could be added by those who cared about it. Several OS/2 enhancement projects are underway already, such as the Win32-OS/2 project that's in alpha test; providing open source would make it much easier for the volunteer programmers to complete that job.

Naturally, the availability of OS/2 code—or just part of it, such as the Workplace Shell—would make life easier for the commercial software developers who currently struggle to figure out how OS/2 manages memory, or graphics, or printing.

Plus, some of OS/2's technical features could be ported to other operating systems, such as Linux. For a significant percentage of the OS/2 community, the Workplace Shell is the key component they love; a WPS on Linux would permit them to change OSs.

And, at an emotional level, we wouldn't be dependent on IBM to do or not-do something with the operating system. A lot of OS/2 history can be summarized as "waiting for IBM to do something."

Unfortunately, most of the proponents of an Open Source OS/2 get stuck in the advantages that an Open Source model would create for the OS/2 community. We see how it would be good for us, but nobody has presented a compelling reason to explain how IBM would benefit by taking such an action. Naturally, if IBM doesn't see a benefit—which means a financial win, not just the relief of getting rid of us "scurvy elephants"—they have no reason to implement such a radical change.

What's in it for them?

Even if the IBM "powers that be" were enthusiastic about the idea, imagine what they would have to go through to release OS/2 in an alternative manner.

In software years, OS/2 is an old product. It contains pieces from many people and many companies, some of which may be licensed or patented or have another form of legal protection. For all we know, IBM is still paying royalties on parts of OS/2. Microsoft is only one of those companies. For example, IBM pays a yearly fee to the companies who developed the Bonus Pack applications. Those vendors have no reason to let IBM out of its contracted agreements. At a minimum, it's extremely likely IBM would be prevented from releasing the code for WinOS/2... which would put a real kink in the works for many users.

And never forget: IBM is not a market driven company. Nor is it a marketing driven company. IBM is a lawyer-

driven company, through and through. With that in mind, think about the amount of work that it would take the IBM lawyers simply to find out if it was feasible to implement this.

And from IBM's point of view... what would they gain? Sure, IBM isn't exactly buying airtime for the Superbowl to promote OS/2, but it's still *theirs*, and they make some tiny dribble of money from it. "Giving it away" isn't a perspective that comes naturally to these guys, even if they have no personal devotion to the product line.

Plus, they're understandably concerned about the reception that such an action would receive from the big corporate customers. Sure, Linux is in use in those companies, but it's usually implemented in quiet corners that are run by the technical staff. The IS managers who wear suits and ties aren't even aware of what's going on... uh, I mean about Linux, that is. (To be fair, those executives are just good at something other than technology.) Keep in mind that it's those guys in suits that IBM talks to, sells to, and "creates a relationship with." To put it bluntly, if IBM released OS/2 in any manner, they take the risk of ticking off those corporate customers, and they don't particularly win anything.

What? You think they'd earn loyalty from the end user community? If they don't care about that community now, when it's an existing user base who spent modest (by IBM's standards) money on them, why should they care for those people when they aren't paying IBM a cent?

If the end user community is viewed as "scurvy elephants" now, what makes you

think IBM would care for any activity that would increase the (free) market share of the operating system... which, by any measure, they're working hard to "transition" to other platforms?

And what about the apps?

Proponents of the "just make it free" approach point out that a more accessible OS/2 will attract new users, which provides a larger market for OS/2 software developers. That sounds like a Good Thing, but it ignores the issue of compensation for those programmers. "Free" is a good word for end users and it's arguably acceptable to resellers and business partners whose income rely on service and support anyway. But only a subset of programmers are willing to donate their creative work to the community, especially if they want their rent paid on time. I had a great conversation at Comdex with Ransom Love, the president and CEO of Caldera, who said that Linux users

are willing to pay for applications, but I'll remain dubious until I see the evidence for myself.

But now take that experience into corporate terms, the way that IBM would. They can sell DB2 to AIX users for thousands of dollars because AIX itself isn't cheap. Would corporate customers pay the same rate for DB2/2 on a free OS/2 that they would for AIX or NT? If not, wouldn't the corporate AIX and NT users demand the same discount?

And in the end...

An open source OS/2 might be good for the computing community, but it isn't clearly a win for IBM. I just can't see it happening.

This isn't the situation I would choose, but it's certainly the state of affairs that I observe. Do you see a better answer? I'd like to hear it. ☺

THE

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Warpstock and more

by Judy McDermott

.two warped

"We'll be back!" That's what I heard from everyone I spoke with during Warpstock 98.

OS/2 users, ISVs, and developers traveled from around the world to attend the OS/2 event of the year in Itasca, Illinois, October 17 and 18, 1998. People came from as far away as Australia and Germany. Many had attended Warpstock 97 in California, plus there were many first timers who said they wouldn't miss next year's event for the world. It was another overwhelming success. Warpstock pictures are available at www.os2voice.org and www.warpstock.org.

The vendors were better prepared this year and I heard no complaints of anyone running out of products. The exhibitors were also very pleased with the enthusiasm of the crowd. Since the vendors can take care of their own publicity, I'll give you some idea of the grassroots activities that went on.

POSSI at Warpstock

The Society's own booth was busy again this year. Dick Krueger, Evelyn Hitch, and Roy Hitch signed up 41 new members, 12 renewals and one lifetime member. Then there were the sales of back issues of *extended attributes*, polo shirts, and denim shirts. (By the time you read this, BMT Micro should have online ordering available for these POSSI items.)

Saturday night, a group of POSSI members—actually a mob of about 50 people—had dinner at a Japanese restaurant, and had a great time. My only regret is that I wasn't an experienced chopstick user. But look out next year! [We'll enjoy watching Judy eat BBQ with chopsticks. —Ed.]

POSSI plans to submit a bid for Warpstock 99.

VOICE's booth

VOICE, the virtual OS/2 user group, made a live appearance at Warpstock 98. It was a real treat to actually meet some of the members in person. VOICE acquired 21 new members and sold bright raspberry T-shirts. BMT Micro, which maintains the VOICE Store, has the T-shirts available for ordering.

VOICE, which conducts all of its meetings in IRC on the WEBBnet servers, felt it was important to provide the OS/2 community with live coverage. Due to networking problems, this didn't quite turn out as expected. VOICE had also planned to post pictures during the event, but this couldn't be accomplished either due to the network being setup as a socks server.

Attendee taped interviews are available for download on the VOICE home page.

VOICE has had some interesting and informative guests for their popular Speak up sessions. The logs of the IRC sessions are available on the site.

Sundial Systems has agreed to do a series of speakups in order to cover their numerous products. These will take place every other month, starting in December, on the first Monday of the month at 8:00pm EST. December's session will cover DBExpert. February's featured product will be Mesa 2 2.0.

Mike Persell, member of POSSI and an IBM employee, will be a guest on December 14, 1998 at 8:00pm EST, to discuss and answer questions pertaining to the Aurora beta. VOICE set up an Aurora beta mailing list in November and it has been very active. Mike was kind enough to subscribe to the list, and provides information and technical assistance to the best of his knowledge. Thanks Mike!

Be sure to check the Event Calendar for upcoming events.

Southern California OS/2 User Group

SCOUG was the host of the overwhelming successful Warpstock 97 in Southern California, and they were present this year, too.

President Terry Warren, said, "The SCOUG booth was quite busy. There was a lot of interest in our proposed CuSeeMe/2 experiment, which, unfortunately we were not able to perform due to the networking situation; however, we did manage to get Timur Tabi on the chat line for a short time Saturday evening and we certainly appreciated the help from VOICE in getting this off the ground.

"Overall, I think this year's Warpstock was successful, in spite of the 'rain from above,' which, according to informed sources, was specially arranged to help make [SCOUG columnist] Webfoot feel more at home. Although I did not hear the official attendance figures, it seemed like there were more people than in '97."

SCOUG acquired 19 memberships including several renewals from last year's Warpstock signups. Terry said, "It was nice to see those members again and encouraging to know that they are still interested in supporting SCOUG!"

SCOUG sweatshirts were a big hit and they ended up taking some mail orders. Attendees also purchased about 75% of their T-shirt inventory.

Testing, testing, 1...2...3

SciTech Software is looking for beta testers for SciTech Display Doctor for OS/2, SDD for OS/2. This universal display driver utility will bring SciTech's proven device driver technology to the OS/2 Warp platform. Currently SDD is avail-

able for Windows/DOS and Linux platforms. Requirements are OS/2 Warp 3 (Fixpack 35+) or OS/2 Warp 4 (Fixpack 4+) and is built using the new IBM GRADD display driver technology.

Features include full OS/2 GRADD display driver that supports DIVE/EnDIVE and Win-OS/2 seamless. Support for every display mode imaginable, 320x200, 320x240, 400x300, 512x384 etc. Low residence game modes up to 2048x1536 regular and 2048x1152 HDTV, 16:9 aspect ratio modes. Color depths from 8bpp up to 32bpp. Com-

plete, generic refresh rate control and display mode centering. Refresh control is provided even for standard VGA graphics and text modes! Full 2D hardware acceleration support for just about every chip on the planet. Direct fullscreen OS/2 native graphics libraries available using the SciTech Multi-Platform Graphics Library (MGL) (still in development, but core technology porting has been done).

Interested? Contact Kendall Bennett, Director of Engineering, Kenda11B@scitech-soft.com, for full details. Screen shots of

available products can be found at www.scitechsoft.com. ☺

Advansys ABP940-UA PCI Ultra SCSI

by Elliot Abramowitz and Marc Abramowitz

review

This SCSI host adapter, which is manufactured by Advansys, contains several features that a user considering switching to a SCSI environment might wish to consider.

Since it's a PCI card, it can be easily installed using plug and play. It uses bus mastering to reduce the load on the CPU. It supports SCSI-1, SCSI-2, and Ultra SCSI. The real key feature is that, in addition to other operating systems, this Advansys adapter supports OS/2 Warp 3 and 4.

Plus it's reasonably priced!

Installation

As with most plug and play cards, installing this SCSI adapter is easy, with no jumper settings to worry about. However, for OS/2 to work correctly, certain driver files must be installed.

If you are doing a fresh install, the drivers need to be placed on a copy of OS/2's Disk 1. If you have an existing installation of OS/2 Warp, then you'll need to copy the drivers to your hard drive and edit CONFIG.SYS.

Advansys made installation fairly easy by placing the drivers on a bootable CD-ROM, along with PDF-formatted documentation. You simply follow the step-by-step installation instructions for either a fresh install or an existing system.

There's one drawback. While you install the files on the first OS/2 diskette, during the actual install the name of the product does not appear in the SCSI card area of the hardware installation screen even though the support is actually

provided. It would be nice for it to appear, just so the user has a sense that the drivers are being installed.

Problems

Like most good things, the Advansys product has a couple of other slight drawbacks.

During the boot up process, the equipment that is attached to your SCSI chain is listed. But it displays for a very short time, really doesn't allow you to see the settings or modify them. Nor is any program included that performs this function on demand. This type of information is important if you have problems, such as SCSI devices with the same ID on the chain.

To solve this problem, we tried calling Advansys on their toll free tech hotline number and then tried emailing the support section. In both cases we didn't receive a reply. So the company, at least in our case, does have a tech support problem.

Otherwise, the card has performed flawlessly even though it costs a bit less than some of the other entry SCSI cards around. If you're thinking of switching to SCSI, this is one card that you seriously should look at. ☺

A timely toolkit

Implementing the installation "feature"

by John Wubbel

For most developers, there aren't enough hours in the day to get everything done. If only you did not have to sleep! Here you are, in the middle of writing a great utility—and oh, by the way, it has to be ported to three other platforms. Then, along comes one of your customers, reporting a Y2K bug. Off you go in that direction to fix an older piece of code. Finally, you get back to your favorite pet project. It is nearing completion when it suddenly dawns on you that you cannot ship it without an installation program.

Installation and configuration programs seem to be the nemesis of great developers and the companies that publish software. It is the first thing a customer sees and if there happens to be a bad experience with the installation process, it tends to tarnish your reputation no matter how great your utility happens to be.

So you need to give the subject some thought. You can write a generic installation program to run on each of your targeted platforms. Doing that means you will have to test the install almost as much as you tested your original utility. Or, you can purchase third party software to do the job. No alternative solution seems to be the answer.

**This developer toolkit
will help you
get your software products
to market**

Guess what? You just got lucky. Earlier this year, IBM released the IBM Java Installer. It is delivered in their Installation Toolkit, and is intended for use by developers. The big push to use Java as the language of choice for writing software that will run everywhere, plus the fact that developers are 30% to 40% more productive, means that a larger volume of finished applications will be coming to market. Someone at IBM had the foresight to realize that a timely toolkit was needed. After all, a lack of installation programs could realistically impede the time to market for many applications.

Cross platform support

The IBM Java Installer is the answer to your dilemma. While the installer is a Java program, it can install non-Java programs on seven different platforms. These include Mac PowerPC, Linux, OS/2, Windows 95/NT, AIX, and Solaris. You only need the one program, not a port for each targeted platform. The only prerequisite to run the installer is that a customer needs the Java Runtime Environment (JRE)

available. The JRE is installed on a system and provides the support to run Java applications.

The installation toolkit is a free download. The toolkit comes with a Wizard for building the installation program. A series of screens ask some basic questions and then begins to generate the installation program. When this process is complete, there is only one file to ship, called `install.class`, which is the installer executable.

When `install.class` runs, it is self-extracting. All the class files necessary unto itself are unpacked. Then, it instantiates itself and gives the customer a series of screens, leading up to the actual file copy operations. The application files installed on the target system are bundled in a file called `data.zip`.

Once the installation is complete, the installer does a cleanup of its own files from the initial self-extraction process. The installer also gives the customer the ability to uninstall the application at a later time. This whole process for the developer is pretty well automated and requires minimal time to learn.

Customizing the installer

The toolkit optionally allows developers to customize the installer. Whereas the Wizard provides basic functionality, the toolkit also provides classes to extend the user interface. The file, `Installer.java` is the core code where modifications or additions can be written to enhance the program. In fact, the IBM developers put comments in the code, recommending specific locations where modifications may be made. You can go back to the Wizard and quickly rebuild the install load, and the Wizard will recompile the changes made to `Installer.java`.

The `Installer.java` code represents an elegant model of a system that evolves through state transitions. The user can move forward or backward in the install process, using "Next" and "Back" push buttons, or cancel out altogether prior to invoking the file copy operations. This same model is used in the Wizard when the developer is building the installation load. For example, if the developer changes his mind in midstream regarding the default installation subdirectory path location, he can step back to modify the appropriate field. When the customer runs the install program, the same field will show the subdirectory path specified by the developer. The end-user can change the subdirectory name rather than taking the default. This allows a great deal of flexibility for both the developer and the customer that would otherwise not be possible in a hard coded platform-specific installation program.

The IBM Java Installer comes with a set of graphic files for the user interface screens. You can also replace these so the install program looks more like your own company's product, rather than IBM's. For example, you can replace progress0.gif with a bitmap of your company logo.

Some developers would simply be happy just to get the files copied to the target system and worry about configuration later. Realistically, customers deserve more function than this and should not have to manually finish the install job. The IBM Java Installer will create folders and shortcuts on

the desktop or in the Start Menus for the various platforms. This is not always easy to get right on platform-specific install programs because a folder object on OS/2 is much different than on, say, a Windows system. The developer has to know a great deal about each system. If the installer does not already provide for specific configuration function, the developer can easily write some code to provide it, thus giving customers what they deserve.

Most installation programs do not come with user's guides for customers to view ahead of time. I suppose the premise is that

the installation program is so idiot proof that a guide is not required. However, the time saved by this toolkit might give you an opportunity to write a short guide. These are often helpful as installation programs get more complex. When the end-user can understand the semantics of decision points throughout the installation process, a user guide lowers the likelihood of receiving support calls.

This developer toolkit will help you get your software products to market quicker with minimal investment of time and money. ☺

<http://www.alphaWorks.ibm.com/formula/installtoolkit>

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You are not alone!

Want to get together with OS/2 users near you?

by Esther Schindler

feature

Besides the Warpstock technical presentations and the OS/2 software vendors showing their wares, a major reason that Warpstock has been so well received is that it's a chance to get together, in person, with other OS/2 users. At Warpstock, you could talk with people who didn't look at you strangely for saying that you use OS/2. For many members of the Phoenix OS/2 Society, the feeling that *I am not alone!* is a big relief.

Granted, the Society started in Phoenix, and its core activities are still based here. Yet, with members in nearly every USA state and in fourteen countries, the user group leadership realized that there's no reason that POSSI meetings could only take place in Arizona! Why not set up geographical special interest groups, so that members in outlying areas could gather... even if it's just for coffee?

I broached the subject on the discussion listserv, and the response was enthusiastic. Members clearly want to get together. However, the logistics presented a problem. Even if someone in, say, Chicago, was willing to organize a geographical meeting, for privacy reasons we couldn't give out member contact information. We found a solution, though, that I think will be workable.

If you want a local geographical gathering, you'll have to step forward. These can't be "official" events, since the board has some concern about liability issues, at least to start with.

Branch Locations

If we call the geographical SIGs "branch locations," the abbreviation could be POSSI-BLs, pronounced... well, you figure it out.

The extended attributes calendar is where the real action will be.

If you live in, say, Chicago or New York or Washington DC, and you'd like to get a geographic SIG started, it's up

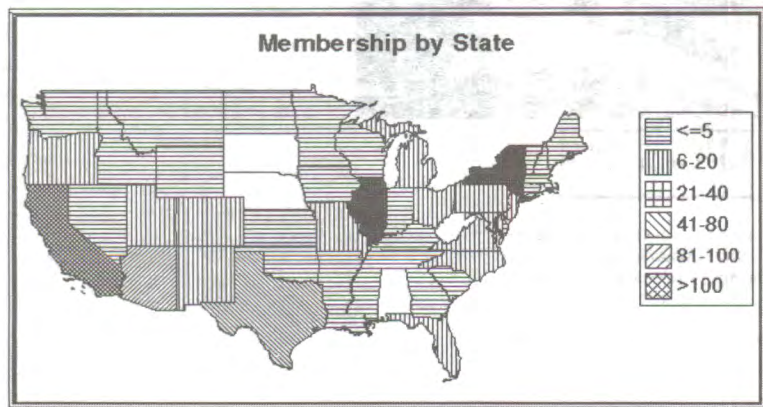
to you to pull it together. Pick a date in late December or sometime in January, and at least mentally pick a place to meet. Then write an announcement for the calendar, and send it to editor@possi.org. For example: "Sunday, January 10, 7:00pm. Regional POSSI gathering in Chicago. For arrangements and location, contact Your Name, 555-1212, email@wherever.com."

This way, the organizer can figure out how many people are likely to show up, and can get a handle on the number of people who are interested but can't make it *that* Sunday. We'll give out contact information in the magazine for only one person—you—and it's up to the rest of the membership to participate or no. If nobody calls you... well, you'll feel lonely, but you won't have expended much energy. But if five or twenty people contact you, it'll be up to you to find a place to meet and say, on that Sunday, "So, do we want to make this a regular thing?"

At that meeting, you guys can figure out where you'd like to take it. If you want to leave the gathering as a "coffee klatch," that's fine. If you want to make meetings more formal, the POSSI board can put together "meeting packets" for the regional groups, helping you put together a "home grown" meeting. (The Topic For March can be backup software, for instance.)

Personally, for the first meeting I'd recommend that you get together for coffee at an easy-to-find coffee shop. Don't get fancy or make the meeting place a big deal. I also recommend you make it a public place rather than your home.

From the board's point of view, this puts the power back in *your* hands... to make it happen or not, to create a regional SIG in whatever form you-all choose. ☺



Peeking at Aurora

by Esther Schindler

As you surely know by now, IBM is readying a new version of OS/2 Warp Server. Although they've announced that the "real" name will be OS/2 Warp Server for e-Business, that's quite a mouthful; in conversation, everyone seems to stick to the company's code name, "Aurora." We're tempted to call it The Operating System Formerly Known as Aurora.

Whatever its name, we'll be delighted to get a preview at the Phoenix OS/2 Society's general meeting. On Tuesday, December 8, our special guest will be the IBM Network Computing Software Division (NCSD)'s NCOS Services Manager, Steven King.

No, not Steven King the author. This one has been around OS/2 since its earliest days, and really cares about the OS—and particularly about server issues. I've publicly given a pound of dark Lindt chocolate to this Steven King, and I don't do such things lightly.

Steven's enthusiasm for OS/2 and OS/2 Warp Server is infectious, and he's a techie's techie. You really can't miss this meeting!

Aurora is scheduled to ship in Q1 1999, or maybe it's Q2. Steven will bring us up to speed on the

progress of the beta, and explain the enhancements in this new version.

So what's in Aurora?

Dick Krueger gave his initial impressions of Aurora in an earlier issue of *extended attributes* (October 1998), but here are a few of its features, to bring you up to speed.

To make OS/2 Warp Server even more robust and eliminate lengthy file system recovery times after a system crash with a current file systems, Aurora includes a Journaled File System (JFS). Using database journaling techniques, JFS can restore a file system to a functional state in a matter of seconds or minutes. In contrast to a non-journaling file systems, Aurora's JFS provides a quickly-restartable, transaction-oriented, log-based, scaleable file system. JFS is key to improving server availability.

The performance and reliability that JFS provides makes Aurora ideal for Web serving. Furthermore, JFS raises the previous file size limitation of 2 GB to 2 terabytes. Partition size is raised from 64 GB to 2 terabytes allowing a file to be the same size as a partition.

Aurora is also enabled to work with Vinca Co-Standby Server, an IBM Business Partner solution that provides safeguards for companies that cannot tolerate down time. Vinca uses a server-mirroring technique which defines clustered resources on two nearly identical systems, creating high availability for both servers. The backup server takes control if the primary system has a hardware failure.

With Network File System (NFS), included with Aurora, a RISC (AIX/UNIX) drive can be mounted and made a shareable resource to OS/2 Warp Server's clients.

Aurora's remote connection services give users full, secure access to the LAN from home or on the road, using the integrated Virtual Private Network function of the TCP/IP stack and its PPP server function.

Aurora includes Year 2000 and euro currency readiness.

The Logical Volume Manager (LVM) in Aurora will make it easier to manage dynamic hard disk requirements. Many terabytes of data are added to the Internet every month. This growing volume of files and databases requires expandable system hard disk. Logical drives can now span multiple physical hard drives. With permanent or sticky drive letter assignments, hard drives can be moved or added without changing their drive letter designation. Partitions can grow without reformatting.

One of the ways in which technology causes change is by constantly providing the means for engineers to create new devices. These devices are good for business—they make things run faster, better, and easier. The difficulty is in integrating this growing spectrum into the corporate network. Aurora helps to simplify this with support of the Intelligent Input/Output Architecture Specification (I2O).

Aurora supports the Light Directory Access Protocol (LDAP), a standards-based Internet directory protocol, and offers IBM's OS/2 LDAP Client Toolkit for C and Java Version 1.0 for C and Java programmers who want to enable new or existing applications to access, search, and update LDAP servers, using LDAP V2 or LDAP V3 protocols. OS/2 LDAP Java/C Toolkit supplies the libraries, files, documentation, and samples needed to develop C or Java directory-enabled applications that can access a variety of LDAP-based directory servers.

There's plenty more, of course. But you'll need to show up at the meeting to see it in action!

When and where

The meeting is held on Tuesday, December 8, at the Mountain Preserve Reception Center, 1431 East Dunlap. A random access Q&A session begins at 6:30pm, and the general meeting gets underway at 7:00pm. ☺

what

- ▶ IBM's Steven King, showing the next version of Warp Server.

where

- ▶ Mtn Preserve Reception Center
1431 E Dunlap
Phoenix, Arizona

when

- ▶ Tuesday, December 8, 1998
- ▶ 6:30pm: Q&A session
- ▶ 7:00pm: Regular meeting

Coming events

A list of events scheduled by the Phoenix OS/2 Society and other OS/2 user groups.

history

December 1998

- 1 net.sig (Internet SIG). Meeting is 6:00pm to 8:00pm. Coordinator Mike Briggs. Location: KDC, 2999 N 44th St, 4th floor, Phoenix.

December						
S	M	T	W	T	F	S
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			9	10	11	12
			13	14	15	16
			17	18	19	20
			21	22	23	24
			25	26	27	28
			29	30	31	

- 5 Magazine submission deadline for January issue. Articles should be sent to editor@possi.org. For other arrangements, call 602-585-5852.
- 8 General meeting; IBM's Steven King showing the next version of OS/2 Warp Server ("Aurora"). Meeting is 7:00pm to 9:00pm. Q&A session is 6:30pm to 7:00pm. Location: Mountain Preserve Reception Center, 1431 East Dunlap, Phoenix.
- 26 Board meeting and magazine prep. Meeting is 10:00am to 1:00pm. Eat a brunch, learn about the inner workings of the Society, and help get extended attributes ready to mail. Location: Bill and Esther Schindler's house in north Scottsdale, 9355 E Mark Lane. Call 602-585-5852 or send email to esther@bitranch.com for directions.

January 1999

- 5 net.sig (Internet SIG). Meeting is 6:00pm to 8:00pm. Coordinator Mike Briggs. Location: KDC, 2999 N 44th St, 4th floor, Phoenix.

January						
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- 5 Magazine submission deadline for February issue. Articles should be sent to editor@possi.org. For other arrangements, call 602-585-5852.
- 12 General meeting; tentative: BizWiz and MoneyWiz. Meeting is 7:00pm to 9:00pm. Q&A session is 6:30pm to 7:00pm. Location: Mountain Preserve Reception Center, 1431 East Dunlap, Phoenix.
- 23 Board meeting and magazine prep.

February 1999

- 2 net.sig (Internet SIG). Meeting is 6:00pm to 8:00pm. Coordinator Mike Briggs. Location: KDC, 2999 N 44th St, 4th floor, Phoenix.

February						
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- 5 Magazine submission deadline for March issue. Articles should be sent to editor@possi.org. For other arrangements, call 602-585-5852.

- 9 General meeting. Meeting is 7:00pm to 9:00pm. Q&A session is 6:30pm to 7:00pm. Location: Mountain Preserve Reception Center, 1431 East Dunlap, Phoenix.

- 27 Board meeting and magazine prep.

March 1999

- 2 net.sig (Internet SIG). Meeting is 6:00pm to 8:00pm. Coordinator Mike Briggs. Location: KDC, 2999 N 44th St, 4th floor, Phoenix.

March						
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- 5 Magazine submission deadline for April issue. Articles should be sent to editor@possi.org. For other arrangements, call 602-585-5852.
- 9 General meeting. Meeting is 7:00pm to 9:00pm. Q&A session is 6:30pm to 7:00pm. Location: Mountain Preserve Reception Center, 1431 East Dunlap, Phoenix.

- 27 Board meeting and magazine prep.

April 1999

- 5 Magazine submission deadline for May issue. Articles should be sent to editor@possi.org. For other arrangements, call 602-585-5852.

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- 6 net.sig (Internet SIG). Meeting is 6:00pm to 8:00pm. Coordinator Mike Briggs. Location: KDC, 2999 N 44th St, 4th floor, Phoenix.
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- 24 Board meeting and magazine prep.

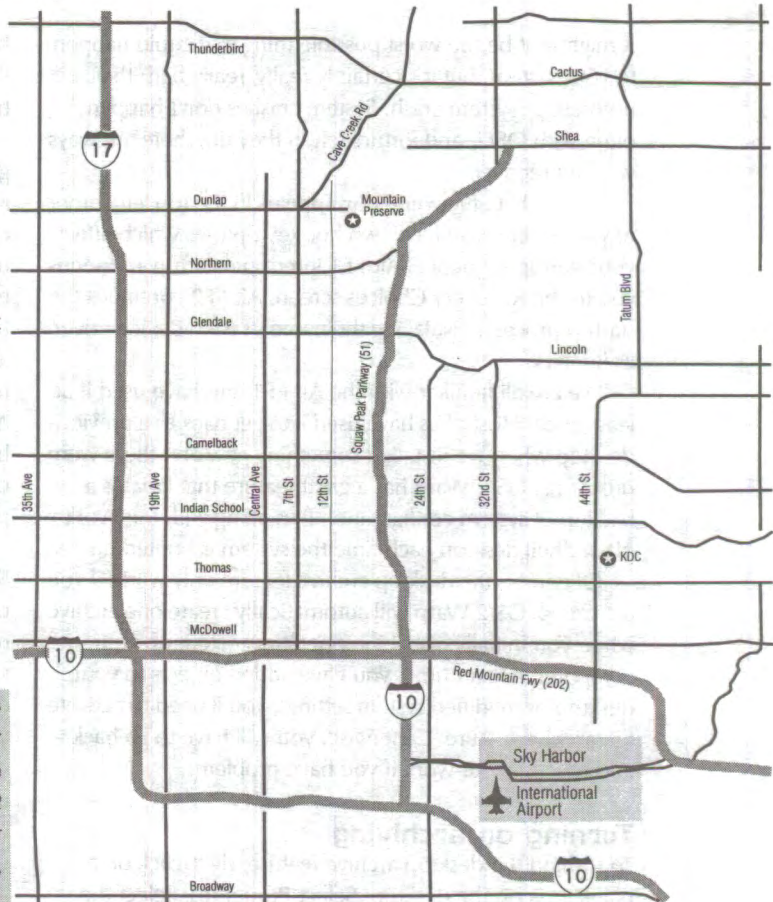
Meeting locations

Directions to meeting locations.

General meetings are held at the Mountain Preserve Reception Center, 1431 East Dunlap, Phoenix.

From the Black Canyon, exit at Dunlap and head east. From the Squaw Peak, exit at Northern. Go west to 12th Street, turn right, go north to Dunlap, turn right, and it's two blocks up on the right.

The "How OS/2 Works General Interest Group" and the Internet SIG (net.sig) meet at Knowledge Development Center, 2999 N 44th St, Suite 400. That's just north of Thomas, in the building with the green dome. Plenty of free parking is available in the garage behind the building. ☺



If the mailing label on the back cover says "sample" then this may be the only copy of *extended attributes* that you will ever receive. If you want to keep getting the magazine (and receive all the other benefits of membership), you must join! A 12 month membership in the USA is only \$30. (See the form for membership pricing in other areas.) Tear out the application, fill it in, and mail it with your membership fee today!

I made a little list

by Esther Schindler

In all likelihood, you're familiar with listservs. You write to an email "group" to which people subscribe, and the messages are automatically distributed to all the listserv members. A listserv usually focuses on a specific title, from issues of interest to OS/2-based ISPs (os2-isp@stat.com) to fans of particular a capella singing groups (netfobs@lists.best.com) to... well, perhaps you get the idea. Lists can have just a few individuals or thousands of subscribers.

Listservs can be open (any member can post), or moderated (one person approves each message before the system disseminates it). Often, the list also offers a "digest version"; you're sent one long message (containing the day's activity) instead of individual email messages.

The Phoenix OS/2 Society maintains two listservs for its members. The announce@possi.org list is a moderated list

used for bulletins ("Until Friday, Vendor X has a special price for members"). The list discussion@possi.org is where we discuss OS/2 topics, from technical support issues to thoughts about what the latest IBM action means. The announce list has only a few messages per month; the discussion list can have 40 or more messages per day.

The lists are meant for POSSI members only, but we haven't been very good about letting new members know how to sign up (often we don't have their email IDs) or excluding nonmembers. We don't try too hard, on the latter, because many lurkers eventually turn into members.

So we leave it to you to sign up manually. Visit www.possi.org/lists.htm (not visible from the home page!) and fill out the form. If you ever want to unsubscribe from the listserv, you can use the same form to do so. ☺

Startup interruptus

What to do when OS/2 doesn't want to

by Marilyn Pizzo

It might not be the worst possible thing that could happen to your system, but it's certainly really, really bad: the unforeseen system crash. System crashes don't happen often with OS/2, and fortunately, if they do, there are ways you can recover.

When that little white box appears in the top left corner of your screen you have two hot-key options which affect your startup sequence. Alt+F1 interrupts startup and sends you to the Recovery Choices screen. Alt+F2 continues the startup process, displaying the name of each device driver as it loads.

We are all familiar with the Alt+F1 and have used it at least once. Most of us have used it to get back to a previous desktop when we installed something new and there were problems. OS/2 Warp has a great feature that creates a backup of system configuration files along with the Workplace Shell desktop each time the system is booted up.

Of course, the desktop archive feature only works if you activate it. OS/2 Warp will automatically create one archive when you initially install the operating system on your computer. If, over time, you have added objects to your desktop or modified system settings, you'll need to activate the archive feature. Otherwise, you will have to go back and redo all your work if you have problems.

Turning on archiving

To turn on the desktop archive feature, right-click on a blank area on the desktop. Select Properties. Select the Archive page. Click on the box that says **Create archive at each system startup**. Warp will create up to three sets of archives. Upon the fourth reboot, or any after that, the oldest set of archives is deleted and a new one is added.

The Archive page also has some other options. The archives are located by default in the \OS2\Archives directory on the boot drive. You could locate the archives on any logical drive accessible by OS/2 Warp when you boot up. Also on the Archive page is an option to display recovery choices at each system startup. I prefer not to use that option because it slows down the bootup time.

You access the archives through the Recovery Choices screen. If you do not have the Recovery Choices screen come on each time you boot up, Alt+F1 at the white box will bring up this screen.

Recovery choices

The Recovery Choices screen has several options. Selecting Esc will continue the boot up process without making any changes. F2 takes you to an OS/2 full screen command line session. Warp will start up using the current CONFIG.SYS

but will not start the Workplace Shell. This option is useful if you didn't archive and your Workplace Shell configuration files are corrupted.

From the command line you can run the MAKEINI program to rebuild the desktop configuration. From the command line you can also run CHKDSK to fix disk errors. You cannot run CHKDSK /f from this command line to fix errors on the boot drive since OS/2 Warp is still using that drive. If errors are on the boot drive, you need to boot from diskettes or a maintenance partition. From this option you can also edit your CONFIG.SYS file using TEDIT. The OS/2 System Editor or the Enhanced Editor will not work from here. After you have finished your modifications, you can go back to the Recovery Choices screen by typing EXIT at the command line and pressing Enter. You can also reboot by pressing Ctrl+Alt+Del.

The next option on the Recovery Choices screen is F3—Reset primary video display to VGA and reboot. This option comes in handy if you install a new video driver and don't get the settings correct. It allows you to go back to a standard VGA mode supported by most video adapters, then reinstall the video driver and proper settings. When you use this option, OS/2 Warp will also remove any video drivers that are installed and install a 16-color VGA video driver. Then you will have to reinstall the proper video drivers using Selective Install from the System Setup folder found in the OS/2 System folder. Select Primary Display and follow the instructions provided.

The F4 option sends you to a Maintenance Desktop. This is the same desktop that appears during the installation of OS/2 Warp. From here you can use Selective Install to replace a part of the OS/2 Warp system that may have been damaged or accidentally deleted. You can also reinstall OS/2 Warp from the point you specify. This will replace the Workplace Shell and installation options but not the operating system itself. Before reinstalling OS/2 Warp, if the Workplace Shell doesn't start when you boot up, first try MAKEINI or CHKDSK to fix any errors and rebuild the OS/2 Warp desktop.

Pressing F5 on the Recovery Choices screen allows automatic detection of plug-and-play adapter cards in your system. This is the default setting. To disable this option select F6. If you have a problem with a plug-and-play adapter during installation you may need to select this option so you can fix the problem.

If the archiving feature is activated, the second part of the Recovery Choices screen will have up to three archives of your desktop—0, 1, and 2. 0 is the original archive from when you installed OS/2 Warp. You will notice all the

archives have dates and times. After a while you probably won't want to go back to your original archive because it is so old.

If you have a really big problem and can't get to the Recovery Choices screen, you can use your utility diskettes to boot the system and get to a command line. Simply

insert the first utility diskette and start your computer. Follow the on screen instructions to get to a command line. Once there you can run CHKDSK /f to search for and correct errors on your hard drive. From the command line, you can also back up or restore system files and directories. When you have

finished what you need to do with the utility diskettes you can reboot with Ctrl+Alt+Del.

I hope no one needs to go through any of these processes, but isn't it better to be prepared, just in case? ☺

High-speed with WarpSpeed

Chris Graham's utilities solve 80 problems... maybe more

by Joel Frey

If your system has a chronic case of slippery bits, if you lie awake at night wondering if your file structures are in disarray, if you are afraid a file you labored over for several hours has gone to write-only memory, or if you're just curious about a variety of technical details... then Chris Graham probably has the utilities you need.

In October, Chris stopped in Phoenix on his way to Warpstock to show us the current state of the Graham Utilities at the general meeting. He originally developed these utilities for his own use as an OS/2 replacement for the Norton Utilities. As the number of utilities grew, it occurred to him that he ought to release them as a commercial suite. Version 1.0 had about 22 applications when it was released in 1994. The latest version has about 80 applications.

The utilities fit into three main categories: file utilities for analyzing and repairing the software structures and contents of the file systems, disk utilities that operate at the physical level such as defraggers, and the general "everything else" category. Although some of the newer utilities are PM and WPS applications, the majority still run in text mode so they can be run from a boot disk for emergency work and because Chris can provide more functionality in text mode.

An example of the everything else category is the Batch Enhancer. The BE command provides a number of functions for use in batch files such as displaying boxes, clearing the screen, returning the day of the week, and playing "beep" files of tunes. The utilities also include a WPS class

that extends the Drives object to allow undelete, defragment, and other capabilities in a GUI form.

On the surface, it's hard to comprehend what you can't do with eighty utilities. It's unlikely that most users would ever need most of these, but Chris provides them with the philosophy that if he had a need for a particular function, someone else might also. The real trick is to remember that it's there when you actually need it.

**It's hard to comprehend
what you
can't
do with 80 utilities.**

Chris's company is called WarpSpeed computers. You may recall that IBM had a bit of legal trouble with the studio that claimed rights to the Warp name. Ultimately, they agreed that IBM could use the name as long as they didn't use it in conjunction with the word "speed." So how does Chris get away with it? Size and location are a big part. Although Chris has had some discussion with them, he has a trademark on the name in Australia where he is based.

Visit the WarpSpeed Web site for more info on the Graham Utilities and to download the demo of the 2.1 version. While you're there, check out Chris's great OS/2 Programming Reference library at www.warpspeed.com.au ☺

WebWilly Watch 3.0

by Craig Greenwood

review

WebWilly Watch is an advanced incarnation of InnoVal's Web browser add-on utility, NetExtra. The additional functionality of this version is focused on protecting children from the "adult only" contents of the Internet. It is kind of like a "child protective cap" for your Web browser. Since NetExtra was recently reviewed in the August '98 issue of *extended attributes*, this review deals mostly with the parental guidance features of WebWilly Watch.



As an occasional Web surfer, I know firsthand how easy it is to innocently stumble upon links to adult oriented material. Just this weekend, for example, I was doing a search on game hints for Jedi Knight-Dark Forces. The search results included a number of links which were clearly targeting a very statistically qualified audience of youthful male gamers (with one notable exception) with the intention of leading them to sex sites.

I'm a Christian, and a father of three children, the older two of which are early elementary school age. I would prefer not to have them exposed to the seamier content of the 'Net when they start exploring it themselves, or even when we look up something together. I would rather not have to come up with an extemporaneous answer to "Daddy, what are they doing?!" WebWilly Watch can be a great aid in relieving this concern.

WebWilly Watch can be set up to prevent the viewing of sexually explicit Web pages, Web pages containing 1-900-phone numbers, and many other user configurable subjects. It can also prevent a child from entering his street address or other private information in chat rooms and on Web based forms.

When WebWilly Watch is installed and configured, it hooks up with InnoVal's Web site and downloads a couple of files which contain lists of restricted URLs and patterns which it evaluates each incoming web page against. These

two files are routinely updated by InnoVal and registered users are encouraged to visit their web site and refresh these files on a monthly basis.

The URL evaluation can be configured to enable blocking of those in the "restricted" file as well as ones which you

can list in the Options notebook. You can also take the inverse approach and allow access only to those URLs that you list.

Incoming browser data can also be evaluated by pattern analysis; which examines a selectable amount of an incoming web page and compares its contents to the list which was downloaded from InnoVal. It then assigns different

point values to significant words that it finds and determines a "score" for the Web page's evaluated contents. This score is then compared to the user selectable "threshold" level, and if the score exceeds the threshold the selected page is blocked. When a page is blocked in this way its domain/directory name is added to the list of forbidden URLs.

Testing it out

To put WebWilly Watch to a mild test, with the threshold set at 2 on a scale of 1-40 (40 being most lenient) and the program set to examine the first 5k of each page, I was able to access the notorious Starr Report, in its entirety, without any intervention from WebWilly Watch. All this proves is that some very salacious content can slip by if the wording is chosen carefully. (The Web based Starr Report was downloaded effortlessly using WebWilly Watch's very convenient Page Mining feature.)

Using the same filter settings I occasionally get blocked at the Excite search page—although not because of the word "excite," interestingly enough. How do I know that? One of the pages of the password protected "Parent Watch Options" gives an explanation of the last restricted Web page.



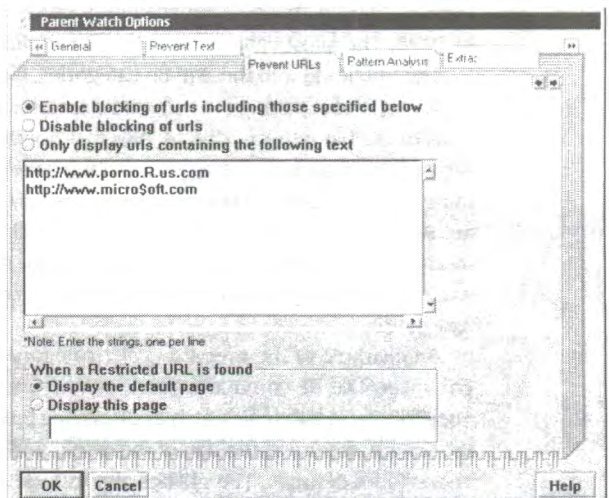
Browsing around for a month at settings similar to those above gave only occasional false blocks. I like that the parental settings are so user configurable and can be set within a fairly wide range between strict and lenient.

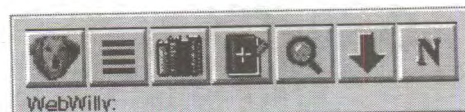
Other cool features

The Significant Site List is a listing of sites that have been accessed by your browser; they're ordered by how often

WebWilly Watch 3.0
\$20.00 Single Family Option
\$159.00 Every Family Option

InnoVal Systems Solutions, Inc
Phone: 914-835-3838
Fax: 914-835-3857
www.innoval.com





they have been visited by someone on your system. This can be a convenient list to use when visiting routine sites. All you need to do is double-click on a listed site and that page is loaded.

Have you ever accessed a Web page thinking you were getting the latest info on a subject, only to figure out sometime later that it had not been updated for a number of months, or even years? The Web Page Info window can be kept open near your browser window to show the age of the page that is currently displayed and, if desired, all the other information the server provides about the page and itself.

WebWilly Watch's feature to Edit a URL's Source File downloads the HTML source code for the viewed page to a temp file so it can be edited. Then, if you know the site's password, you can click on a button to upload the modified file back to the server—almost as if you edited the file on the host.

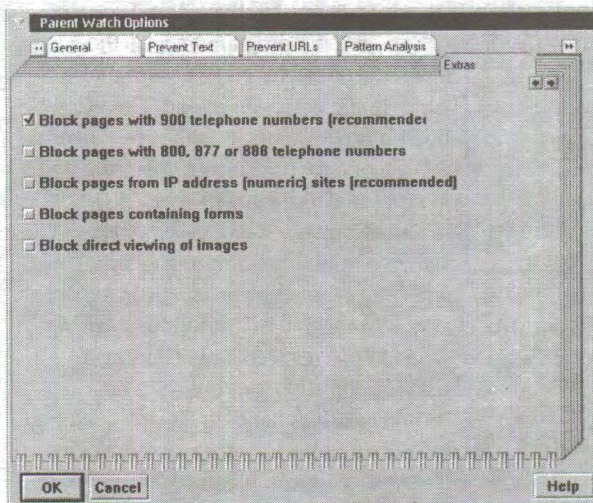
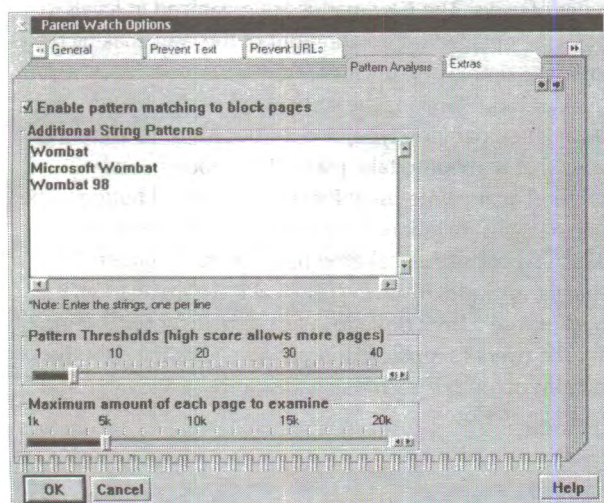
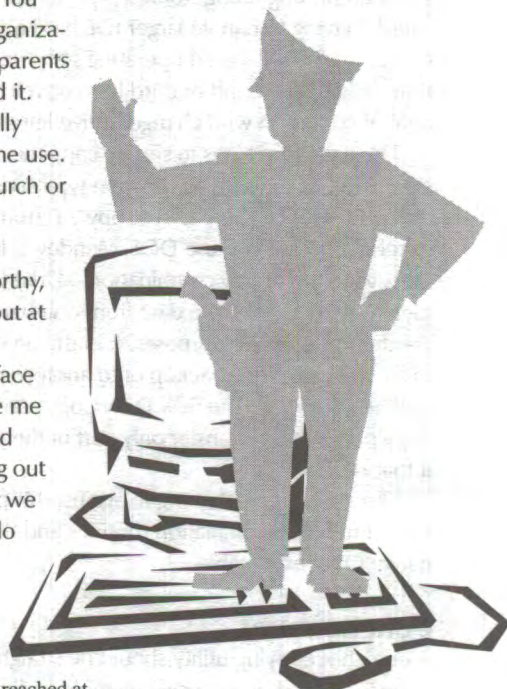
Licensing

The Single Family Option allows you to install WebWilly Watch on every computer in your home for everyone in your family to use. The total cost of a Single Family Option is \$20 and includes licenses for both the OS/2 and Windows 95 versions.

The Every Family Option enables Churches, Schools, and Membership Organizations to distribute copies of WebWilly Watch to every family they serve. You can put it on a church, school, organization, or personal Web site so that parents or family members may download it. Businesses may distribute WebWilly Watch to their employees for home use. The Every Family Option for a church or school costs \$159.

I prefer to train my children to make right choices and be trustworthy, rather than restrict their choices, but at their young ages there are some choices I feel they don't need to face yet. WebWilly Watch can provide me with a great deal of peace-of-mind when my children begin venturing out into the vast knowledge base that we call the Internet. I believe it can do the same for you, too. ☺

Craig Greenwood is a software junkie and fledgling freelance author in the mainstream computer press. He can be reached at craigg@bigfoot.com.



DriveCopy

by Tom Nadeau

review

Upgrading a computer usually involves increasing both the hardware's storage capacity and its processing power. While increasing processing power is relatively easy and transparent, upgrading storage capacity can get complicated. Having to handle larger IDE hard drives usually causes fits for FAT-based operating systems. At the same time, adding a second or third hard drive can cause a great deal of confusion with changed drive letters.

The easy way out is to simply copy the old drive onto a new drive, as long as the partition type(s) don't need to be changed. This is where DriveCopy 2.0 from PowerQuest excels. Whether you use DOS, Windows, IBM OS/2, a Unix variant—or any combination—DriveCopy 2.0 is an ideal way to transfer the data from one hard drive to another for upgrade purposes. It is also an excellent way to make a whole-drive backup onto another hard drive (offline mirroring). The new DriveCopy can even selectively copy partitions, to transfer only part of the drive's contents, if that is desired.

The only factors that argue against this product are the lack of full OS/2 installation routines and the lack of a native OS/2 executable.

Functionality

A one-shot copying utility should be straightforward and unencumbered by unnecessary tools or distracting buttons. On the other hand, the ability to select which source and destination drives and partitions to use is a useful feature.

DriveCopy 2.0 allows you to select Entire Disk or Selective Partition copying. The selection of source and destination drives is straightforward, just as in DriveCopy's previous version. A list of the available drives is shown for each step of Entire Disk; a list of available partitions is also provided in the Selective option. After you select source and destination for copying, the program reviews the

details of the selections to ensure that you're doing what you intend. DriveCopy shows a progress report with two horizontal bars, one for the current copy step and one for the entire copy process.

DriveCopy is limited, as it cannot change partition types during a copy,

though PowerQuest's Partition Magic product can accomplish this. DriveCopy is somewhat of a stripped-down version of Partition Magic in this respect. DriveCopy also allows you to adjust partition sizes, but only as part of a copying process. While data was handled flawlessly during both OS/2 system copies and Windows 95 system copies, there was one interesting omission: when copying a FAT

partition to a drive larger than 2 GB, the partition was resized only to the 2 GB boundary. No message was given to explain the reason. An insert in the product packaging does explain why this occurs (it's an inherent limitation of FAT16).

The only error noted during copying was not a data error, but a boot problem: copying a drive containing Boot Manager, PC-DOS 7, and two HPFS partitions caused the Boot Manager menu to only display the PC-DOS partition on the destination drive. I was able to correct this error by booting to an OS/2 diskette and running OS/2 FDISK, but this is not the kind of problem that a typical user would know how to fix. Functionality Score: 6

Performance

DriveCopy can be run from a single DOS-boot diskette, which makes system upgrades very easy. The running environment needs 400KB minimum free RAM, which is simple if no extraneous drivers are loaded during the boot process. The PC needs to have a minimum of 8 MB RAM installed (16 MB for FAT32 or NTFS partitions).

Copying an entire 2 GB partition took approximately 25 minutes from start to finish, using typical Pentium machines and IDE hard drives. The maximum partition size is not given in the documentation, but BIOS limitations may put a limit of 8 GB on the program's capacity. In other cases larger drives may be used. No minimum amount of free hard drive space is required on the source drive. Performance Score: 9

Usability

The user menus are activated either by mouse-clicks or by keystrokes, which makes DriveCopy very convenient for all types of users. The user menus are organized in levels to push the detailed information out of the way, making the interface simple and uncluttered.

A pictorial showing the source and destination drives by drive letter, partition type, and partition size helps remind you what is about to take place. The process can be stopped at any time using Previous or Cancel buttons. The one nagging limitation is the lack of an OS/2 executable, which would make real-time backups much easier. For straight upgrades involving physical drive installation, the need to use a boot diskette is not a significant problem.

The overall simplicity and providing just the right mix of options on each screen make this product a joy to use. Usability Score: 9

DriveCopy 2.0

\$29.95

PowerQuest Corporation
PO Box 1911
Orem, UT 84059-1911
Phone: 801-437-8900
Fax: 801-226-8941
www.powerquest.com

Reliability

I used a variety of source and destination drives and partition types during testing. No crashes or data loss occurred during any copying procedure. The resultant partitions worked flawlessly, except for a glitch with the OS/2 Boot Manager menu mentioned earlier. Reliability Score: 10

Compatibility

Here is where the penalty for Boot Manager problems must apply. While I copied FAT, FAT32, and HPFS partitions with ease, a Boot Manager menu error occurred. While not as severe in nature as a data loss or corruption would be, this is nonetheless a significant problem for OS/2 users and others who like the Boot Manager. Interestingly, Boot Manager is now bundled with PowerQuest's Partition Magic product, so this kind of problem should not have occurred.

Additionally, using DriveCopy with OS/2 is not straightforward; the process required to make a bootable DOS diskette from OS/2 did not function as designed, so I had to create a boot disk manually. Compatibility Score: 6

Installation

Since the product operates from a DOS diskette, installation should be straightforward. However, as mentioned above, the OS/2 installation procedure needs to be fixed. The other operating systems seemed to accept the installation commands correctly. The whole issue of an installation diskette under OS/2 involves OS/2's limitation of not being able to build a one-diskette bootable fileset. PowerQuest and IBM need to get this one right. Installation Score: 7

Documentation

From the screenshots and line-by-line explanations of operating steps to the real-world examples provided, the printed manual is superb. A list of error message explanations is provided, as well as contact information for major drive manufacturers. There is also built-in online help. Not much

else is needed for a simple utility program. However, the OS/2 instructions for making a boot diskette are not printed in the manual, but are only in a Readme file on the program CD. Documentation Score: 9

Technical Support

PowerQuest offers a Web site with technical support areas, as well as free toll-call support for 90 days after the first incident, a faxback number, and a BBS. I checked out the Web site tech forum, which had plenty of good Q&A.

However, though it listed 57 articles on OS/2, the CGI directive failed to work past the first 15 documents. As a result, I was not able to find any particular information on DriveCopy 2.0 and BootManager menus. Technical Support Score: 7

Upgradeability

PowerQuest seems to live by the Gospel of Incrementalism: always make the next version a little bit better, but don't give away the whole gizmo. By watching the progress of their three flagship products (Partition Magic, Drivelmage, and DriveCopy), it is easy to imagine a single utility that encom-

passes all three packages. I believe that's where PQ is heading.

Recently, a ruckus occurred about whether PQ would continue supporting OS/2. With the massive support of the OS/2 community, PQ has been seriously considering further OS/2 enhancements. Considering that OS/2 users statistically are more likely to be the power users who make up the core customer base of a utility developer, this would also be in PQ's own best interests. Upgradeability Score: 6

Overall Value

With a street price in the \$25 range, DriveCopy is not a throwaway package. The license agreement specifically points to a one-PC-per-copy arrangement, which implies that homes with two or more PCs need to buy multiple copies. I doubt PQ intends to enforce the license to that extent. Overall Value Score: 6

TABLE 1. Tom's scores for DriveCopy

Category	Raw Score	Weighting	Net Score
Functionality	6	20%	1.2
Performance	9	15%	1.35
Usability	9	15%	1.35
Reliability	10	15%	1.5
Compatibility	6	10%	0.6
Installation	7	5%	0.35
Documentation	9	5%	0.45
Technical Support	7	5%	0.35
Upgradeability	6	5%	0.3
Overall Value	6	5%	0.3

The Verdict: 7.8

Professor Twiddle's College

Creating your own Object Rexx classes and methods

by John J. Urbaniak

Hello. I am Professor Twiddle. I would like to teach you more about Object Rexx.

Previously, I discussed some of the built-in classes in Object Rexx, the Array Class, the Queue Class and the Directory Class (*extended attributes*, July 1998, October 1998, and November 1998).

This time, I want to show you how to make your own classes and use them in combination with the built-ins.

We are going to do some of the same things we did in November, but this time, we will do them using our own classes and methods.

Classes

You define classes and methods *at the end* of your Object Rexx program.

Schematically, we use statements like this:

```
::class myClass
::method1
    use arg arg1, arg2, ...
    (code for method1)
    return
::method2
    use arg arg1, arg2, ...
    (code for method2)
    return
```

You create objects of your own classes with statements like this:

```
myObject = .myClass-NEW
```

Note the dot before "myClass". You have to use the dot like this. It's one of the rules.

For the super-experienced Object Rexx purists, the Object "myClass" is actually stored in the program's local environment, which is an Object Rexx Directory. The dot instructs the Object Rexx interpreter to search its environment for an entry with index "MYCLASS." When it finds it, it invokes the class method NEW, which is available for all classes. The NEW method creates a new object, then invokes the object's INIT method.

For the non-purists, just use the dot and don't worry about it.

Attribute methods

The easiest, and in some sense most usable kinds of methods are *attributes*.

You create them with single statements like this:

```
::method color attribute
::method height attribute
```

```
::method birthDate attribute
```

Then, in your programs, you can use statements like:

```
myObject-color = 'Red'
```

```
myObject-height = 60
```

```
dateOfBirth = myObject-birthDate
```

Thus, you can set attributes with statements of the form `object-attribute = something`.

And you can retrieve attributes with statements like `variable = object-attribute`.

The program listing shows how to make a class (Star) with attribute methods (Magnitude, Distance, Type). It demonstrates how to make new Star objects and store them in an Object Rexx directory (Stars). And it shows how to use the directory methods with your own methods to manipulate the objects and their data.

Discussion of the program

We made our own Object Rexx class, the Star Class, and created methods, called attributes, which stored basic data for our stars.

We made an INIT method for the Star class. This method is called automatically whenever a NEW object of the class is created. The INIT method accepts the three arguments which were passed to the NEW method upon creation. The arguments are used to set the initial values for the attributes Magnitude, Distance, and Type.

We stored the new Star objects in an Object Rexx directory, Stars, indexed by the star's common name.

It is important to realize that the objects stored in the Stars directory are objects themselves. Although Stars['SIRIUS'] is an entry in the directory, it is really a member of the Star class (actually, a pointer is stored in the directory, but you can think of it as the object itself). The same occurs for Stars-Rigel, it is an object itself. To verify this, include these statements before the return:

```
say Stars['SIRIUS']
say Stars-Rigel
```

You will get, in both cases, "a STAR." That is why we are able to use terms like:

```
Stars['SIRIUS']-Magnitude
```

```
Stars-Rigel-Distance
```

We used the objects in our directory to make calculations, display results, and make changes, just as you would expect a program to do.

I hope you are beginning to see how powerful and how useful Object Rexx is. And, we haven't even scratched the surface. ☺



Listing 1. Classes and attribute methods

```
/* Stars1.CMD - Introduce classes and (attribute) methods */

/* First make a directory to hold our objects */
Stars = .directory-NEW

/* Create NEW Star objects with parameters (Magnitude,
/* Distance, Type).
/* Store them in the Stars directory.
/* See the bottom of the program for the definition of
/* the Star Class and its (attribute) methods.
Stars['SIRIUS']      = .Star-NEW(-1.47, 9, 'A1')
Stars['CANOPUS']     = .Star-NEW(-0.71, 300, 'F0')
Stars['ALPHA CENTAURI'] = .Star-NEW( 0.27, 4, 'G0')
Stars['VEGA']        = .Star-NEW( 0.03, 26, 'A0')
Stars['RIGEL']       = .Star-NEW( 0.08, 850, 'B8')
Stars['AMENIAR 7']   = .Star-NEW(21.50, 'Unknown', 'M5')

/* Object attributes can be retrieved using the twiddle.
/* Remember that for a directory, you can use the index
/* in square brackets, or you can use the special
/* directory-object notation. You can use either, but
/* keep in mind that the square bracket notation is
/* case-sensitive. We will intermix both notations.

say
say 'The Magnitude of Sirius is '
say 'The Distance to Rigel is 'Stars-Rigel-Distance ,
'light years'
say 'The spectral type of Canopus is 'Stars-cAnOpUs-Type
say

/* Object attributes can be changed using the twiddle */
Stars-Canopus-Type = 'F0 Ia'
say 'The revised spectral type of Canopus is' ,
Stars['CANOPUS']-Type

say
say 'Note there is no special ordering to directory entries.'
do obj over Stars
  theStar = Stars[obj]
  say LEFT(obj,15) theStar-Magnitude theStar-Distance ,
  theStar-Type
end

/* Distance Calculation */
numStars = 0
totDistance = 0
do obj over Stars
  theStar = Stars[obj]
  theDistance = theStar-Distance
  if (DATATYPE(theDistance) = 'NUM') then do
    numStars = numStars + 1
    totDistance = totDistance + theDistance
  end
end
say
say 'There are 'numStars 'stars with known distances.'
say 'The average distance is: ' totDistance/numStars ,
'light years'

return

/* The following statements define the Star class. */
/* In Object REXX, class and method definitions */
/* come at the end of the program. */
```

```
::class Star

::method Magnitude attribute
::method Distance attribute
::method Type attribute

::method INIT
  use arg Mag, Dist, Typ
/* Above arguments are passed through from the NEW method */
/* NEW automatically calls this INIT method */
/* 'self' refers to the object, similar to 'this' in Java */

  self-Magnitude = Mag
  self-Distance = Dist
  self-Type = Typ
```



OS/2 Fixpaks on CD-ROM

Stop downloading multi-megabyte Fixpak files and get the latest Warp Fixpaks on CD-ROM for only \$15. Subsequent CDs cost you only \$8! Pop in the CD, and run the installation program to install the Fixpak.

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New and improved

compiled by Esther Schindler

random bits

Last month's batch of new and updated applications seemed to include a lot of Java applications, plus some development tools. This time we have several applications for "mere mortals," suitable for use at home and in small businesses. There's even a game or two!

If you're interested in reviewing any of these programs, contact the Reviews Editor at reviews@possi.org. That's a fun way to "encourage yourself" to learn the nitty-gritty of a given program, and you can help other OS/2 users by telling them what's good—and not so good—about what's available.

HomePage Publisher

HomePage Publisher (HPP) is an integrated WYSIWYG HTML Publisher and editor/browser. HPP is a new product that allows you to create or modify any HTML page. Easy to use, it requires no knowledge of HTML tags.

With HPP, you can modify pages and images directly in your document. To change the attributes of text and objects, simply click on a tool bars. HPP is a Web browser that offers you all the possibilities of a word processor. Plus, HPP generates high quality HTML code.

An entry level version does not support frames.

Registration: \$95, Professional; \$49, Entry Level. Available at BMT Micro.

Inet.Mail

Inet.Mail is a total email server solution for OS/2.

Inet.Mail 1.2, the standard edition of the server, adds improvements in several areas:

- Improved POP3 performance
- MX relay support
- Full Year 2000 compliance
- Updated Steward mailing list software
- Updated autoreply software
- New List2Web mailing list to Web page software
- Multithreaded queue delivery for fast retries
- Automatic restart of servers

Inet.Mail Pro 1.2, the professional edition of the server, includes the standard edition plus Server Side ETRN support.

The Inet.Mail product family includes support for suppressing spam and controlling relay usage of the server, two necessary items for today's Internet. Its easy to use graphical interface doesn't require a Unix wizard to configure.

Visit www.hethmon.com for more info. Registration cost varies according to number of users.

Future Wave Editor

Future Wave Editor (FWE) is a text editor for OS/2 Warp 3 and later. FWE is a highly functional text editor which allows you to write macros in the REXX language.

- The file size is unlimited. (Up to 10,000,000 lines can be edited.)
- Edit up to 12 files concurrently.
- Read and write files with the EUC and the JIS codes.
- Unlimited UNDO and REDO.
- grep searches for strings in multiple files. Regular expressions can be used in Search, Replace, and grep.
- Powerfully customizable.
- Ability to activate external programs.
- API help features can be displayed with the Help of Toolkit, etc.
- History function stores search strings and the names of previous files.
- The environments can be automatically changed by file extensions.
- Powerful support for program development: displays a list of functions, jumps to corresponding parentheses.
- Powerful REXX macros.
- Specify a path using environment variables.

Registration: \$40. Available at BMT Micro.

Pyro

A new fireworks application called Pyro is at www.ling.ed.ac.uk/~oliphant/pyro. OS/2 users with GCC/EMX and OpenGL (tested with v1.1) can build and run it. The program has water reflections, water texture maps, etc. You also need the jpeg6b lib from the XFree86OS2 site, at <http://set.gmd.de/~veit/os2/xf86plib.html>.

ZOC 3.1

This award-winning telnet, secure shell (SSH), rlogin, modem, and ISDN shareware communications application offers a feature richness rarely found even in shrinkwrap packages.

You can make quick connects without a lot of configuration; just select the main options from the connect window. Or compose a dial directory with hosts that use different communication methods, emulations, or arbitrary key mappings.

ZOC offers solid implementations of commonly used emulations (VT52, VT100, VT102, VT220, ANSI, IBM 3270) and file transfer protocols (Xmodem, Ymodem, ZModem, Kermit, CompuServe-B). It lets you configure nearly everything; the main options tab sheet contains 18 tightly packed pages. ZOC offers a wealth of functions—

the pull-down menu contains more than 50 entries—including full scripting, chat mode, and message quoting. You can use ZOC to connect to a BBS, maintain unix hosts over secure connections (and perform file transfers over SSH), or connect to any computer that's ready to accept incoming connections from a terminal emulator.

Registration: \$71. Available at BMT Micro.

Master of the Empire

Master of the Empire, by Trillion Software Products, is a strategic wargame of global conquest, diplomacy, and empire building. You assemble massive armies of force and powerful economic machines with the ability to give and take vast worlds.

You start with one basic city. From this humble start you attempt to produce a global empire, where you have benign control of all others. In the process, you deal with persistent combat with enemies, and develop a comprehensive city production schedule. This production uses ten units that must be produced in order to effectively conquer the many empires you will face. There are no consolidations with enemies; only one can survive! Your goal is total annihilation and domination of the globe.

Price: \$25. Available at BMT Micro.

Sslurp! 1.7

Version 1.7 of Sslurp! (formerly known as SpiderMan and WebSucker) is released. Sslurp! can download a Web page and all its links and inline images. Retrieved data is stored on disk for later inspection using a standard Web browser.

You can use Sslurp! to

- make a local copy of a Web site or subset of it for offline viewing
- automatically get Web pages that are updated regularly
- mirror web sites... and so on.

Sslurp! is a 32 bit PM program. It requires OS/2 Warp with TCP/IP 2.0 or newer or the Internet Access Kit. An HPFS partition is required.

Other features include:

- Download Java applets
- Use proxy HTTP server
- Automation, with command line options and logging
- Configurable limits of item size, link depth, and URL structure

- History function keeps last fifteen URLs
- Accepts URL object drops
- ISkip items automatically if they're not newer than the local copies
- Supports HTML frames, image maps, Java applets
- Supports basic authorization and proxy authorization

Sslurp! 1.7 is at www.kaneff.de/~mike/sslurp.

SiteSurfer 1.0

DevTech announced SiteSurfer 1.0, a new information search and navigation tool, written 100% in Java.

SiteSurfer provides easy to use yet powerful searching and navigation capabilities for Web sites, networks, and local files.

SiteSurfer users can move around Web sites and locate information faster and easier than ever before. SiteSurfer is for individuals who want to find information quickly or rapidly navigate through complex sites, and for information providers who wish to provide these capabilities to their own users.

Full text of the announcement is available at www.devtech.com/news/pr981102.html. Contact devtech@ibm.net (Evan Bergman) for more information.

REXX Code Formatter/2

A maintenance release of the shareware REXX Code Formatter/2 (RCF/2) is available. It now flags where a variable value is set in the variable cross-reference listing, and includes other bug fixes.

RCF/2 1.2.5 is available from BMT Micro and Hobbes. Contact Bob Eberle, RKE Software, rke_software@ibm.net.

NFTP 1.4

NFTP is a powerful interactive text mode ftp client for BeOS, Intel, FreeBSD, Linux, OS/2, Solaris (SPARC) and Windows 95/98/NT.

NFTP has innumerable features. It provides a scrollable remote directory view. Remote directory contents are cached during one

session; you'll never have to wait to retrieve the same listing. Remote file viewing is simple and intelligent, and viewed files are cached as well; you can see client-server negotiation (even complete history during all runs).

NFTP has a batch progress indicator, so you see how long the entire operation will take, even if more than one file was selected for transfer. You can skip files during transfer, but continue to download/upload the rest. You can mark files in different directories and then retrieve them all, keeping the directory structure (so you can transfer entire directory trees). NFTP automatically downloads 00index.txt/FILES.BBS/etc and shows file descriptions. The program reconnects to ftp servers as needed; you don't have to worry about time-outs and dropped connections. And there's plenty more!

NFTP is available on multiple platforms with the same user interface (BeOS Intel, FreeBSD, Linux, OS/2, Solaris, Windows 95/NT), and the program is in English, Bulgarian, Brazilian Portuguese, Chinese, Danish, Dutch, French, German, Hungarian, Italian, Japanese, Norwegian, Russian, Spanish, Swedish, and Ukrainian versions.

More information is available from www.ayukov.com; you can register at BMT Micro.

NFTP is shareware. You have to register to transfer files larger than 1024KB. The registration fee is \$25. Unix and BeOS versions are free until 1 February 1999. One registration covers all versions (including future ones) on all platforms.

KON updated

Kon 1.13 is a multipurpose PM text-editor with a lot of useful functions.



Kon features:

- Built-in hex editor. Switchable between ASCII and hex anytime. Hex startup switch.
- Full control of the file you're editing, even in ASCII mode.
- Handles LF only line breaks without converting the file
- Configurable syntax highlighting
- Configurable keys (Borland / Wordstar by default)
- Configurable toolbar
- Search & Replace in multiple files
- Regular expressions
- Macro support (editable macros)
- Undo/redo on all editor functions with configurable buffer
- Multithreaded operation
- Column block
- Word wrap
- Drag & Drop
- Up to ten files in separate windows
- Window manager
- Usable as a file viewer in read-only mode.
- View files in file dialog before you open.
- Autosave
- Prints to printer or file
- Selectable code page
- ASCII table
- Jump to specified position at program startup
- Small and easy to use.

Kon requires no specific installation. Just place Kon in a directory of your choice and add the directory to the PATH statement in CONFIG.SYS.

Registration is \$20. Available at BMT Micro.

Clone Cleaner

Clone Cleaner 2.45 is an OS/2 disk utility which finds duplicate files across multiple disk drives, by file name or by file contents. It works across multiple drives, including HPFS partitions, and supports long file names. You can locate duplicates inside ZIP files, too. Clone Cleaner supports multiple file masks, include/exclude directories, and size/date ranges.

Registration: \$19.95. Available at BMT Micro.

Insurrection Logo

A Flaming 3D Star Trek Insurrection Logo Screen Saver for OS/2—need we say more?

Escape GL V2.2 for OS/2 users may download the screen saver, free of charge, at www.snowstormsoftware.com/gallery.html

For more information, write to snowstm@ibm.net or visit www.snowstormsoftware.com.

CIS/2 updated

The Card Inventory System/2 (CIS/2) assists you in the protection of your valuable credit cards. It does this by providing:

- An easy way to record the cards of interest to the user.
- A simple procedure for noting where such cards are located.
- An easy and systematic method that can be used in reporting their loss should one or more cards become lost or stolen.

You can subscribe to service companies which, for a fee, will help protect your credit cards. CIS/2 helps you avoid the cost of such a service company, or at a minimum, supplements the service by giving you better records about your cards where they are located.

Registration: \$15. Available at BMT Micro.

StarOffice 5.0

StarOffice is a cross-platform desktop suite that includes StarWriter, StarCalc, StarBase, StarImpress, StarMail, StarDiscussion, StarChannel, and StarDesktop. And, best of all, it's now free to individual users.

Star Division's new license model makes StarOffice 5.0 available for free for individual non-commercial use on all platforms. It's now available for download at www.stardivision.com/os2/index.htm.

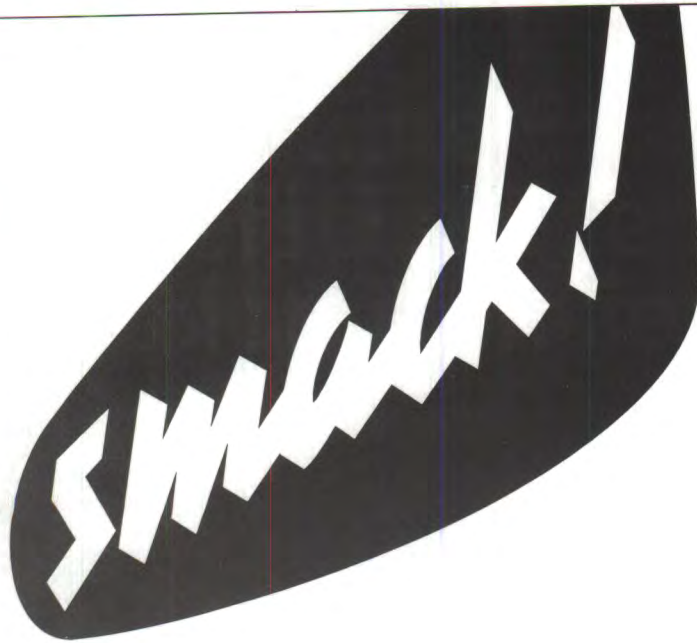
RSJ CD Writer

Using RSJ CD Writer, you can write files and programs with OS/2 to your CD-ROM for backup, information filing, or creation of multimedia titles.

The RSJ CD Writer file system offers you a variety of advantages compared to conventional mastering-programs:

- The CDs are accessed as if they were a diskette or hard drive. This has the advantage of allowing OS/2 programs such as the Workplace Shell to handle files with CDs. Commands such as COPY, XCOPY, LABEL, or CHKDSK will even work!
- Fully automatic operation is possible.
- The RSJ CD Writer file system is fully integrated into the WPS, so you can use standard WPS features to control the file system.
- For daily operation, the CD-Recorder can be used as a normal CD-ROM drive.
- Can be used with all SCSI host adapters compatible with OS/2 and the CD-Recorder.
- With the RSJ CD Writer you can also process and create multisession CDs. Likewise, the program offers the ability to burn audio tracks onto CDs and the CDs can be "sealed" providing write protection.
- CD-RW's can be erased in a CD-RW drive.

Price: \$198. Available at BMT Micro. This version does not include any hardcopy documentation, discs, or diskettes. ☺



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6962 E. 1st Ave. #103, Scottsdale, AZ 85251
Sales: 800-947-7155 Fax: 602-949-1707
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